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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,522	12/14/2001	Cary A. Kipke	56963US002	9096

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EXAMINER	
SODERQUIST, ARLEN	

ART UNIT	PAPER NUMBER
1743	

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/020,522	KIPKE ET AL.
	Examiner	Art Unit
	Arlen Soderquist	1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-63* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-63* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 4, 2004 has been entered.

2. Claim 63 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Examiner cannot find basis in the specification for the formation of a vortex only in the first volume. This appears to be a claim to something that is not possible to produce since a vortex in the first volume, an arbitrarily defined volume of the claims, would inherently cause a vortex to be formed in the second volume, another arbitrarily defined volume that is between the first volume and a sample volume. If applicant is attempting to define over one of the references used in the rejection below, applicant should use language found in or supported by the originally filed specification and clearly designate where that support is found.

3. Claims 1-63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the claims it is not clear if there is any structurally defined element (gas vent, gas inlet, etc.) that corresponds to the point that any of the respective volumes begin or end or if an arbitrary choice of where one volume ends and the next begins is all that is required. The latter case would include the ability to define the boundaries between volumes to have an arbitrary shape. For examination purposes the arbitrary boundaries between volumes is the scope or definition is used by the examiner to treat the claims. It is also not clear if the sample volume is a function the sample being present during the use of the device or if there is a designated portion of the volume that is always the sample volume. In claims 2-3 it appears that a plurality of desiccation chambers are required by use of the word "plenum" in the claims. In claims 4-5 and 7-13 it is not clear if it is "the at least one gas desiccation chamber" that is being further defined or if there are a plurality of gas desiccation chambers required because the at least one gas desiccation chamber different from the at least one gas desiccation chamber of claim 1.

In claims 11-13 it is not clear if the drain port, membrane or valve have any structural relationship to other claimed elements (e.g. the membrane defines the boundary between the second and sample volumes) or if they are only in direct fluid communication with the sample volume. Claims 16-17 have the same problem as claims 2-3 above. Claims 18-19 and 21-27 have the problem of claims 4-5 and 7-13 above. In claims 28-29, it is not clear what structure or property of the concentrator element or processing element makes them either reusable or disposable since the choice to reuse or throw away an item does not appear to be related to its structure (this limitation appears to a process limitation that does not have any bearing on the structure of the device). Claims 44-45, 50-53 and 60 have the problem of claims 4-5 and 7-13 above. In claim 63 it is not clear if the claim limits the vortex to the first volume with no vortex being in the second volume due to it separating the first volume and the vortex therein from the sample in the sample volume or if applicant is claiming something that is impossible to realize in practice.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4 and 59 are rejected under 35 U.S.C. 102(b) as being anticipated by Baker (US 5,716,584). In the patent Baker teaches a device for the synthesis of compounds in an array and method for the simultaneous production of chemical compounds in an array capable of providing a very broad range of reaction environments including reaction temperatures of –40°C to 150°C, reflux, condensation, and a selective gas environment. The invention also allows the addition of several reagents during the course of the production process. The device is comprised of a number of different block sections fastened together to provide the required reaction environment. The device of the invention is referred to as an array synthesis block and is made up of a number of smaller subunits in combination. The various subunits are assembled in a stack depending upon the type of reaction environment required by the desired synthesis. In their assembled condition they include a sidewall at least partially defining one or more chambers (see figures). The device includes a retaining block section for holding reaction

vessels. The preferred form of the retaining block section also incorporates gas flow channeling for providing a selective gas atmosphere. The apertures (38) constituting the gas inlets and gas vents are clearly shown as entering through the side walls of the chambers formed in the assembled device (see at least figures 1B, 3B and 4A-4C with their associated discussion). Usually nitrogen, argon, or some other inert gas is used in order to carry out reactions to the exclusion of oxygen. A temperature control block section is combined with the retaining block section in order to heat or cool the reaction vessels. Heating or cooling fluid is circulated through the temperature control block section. A reflux control block section required for certain synthesis is combined with the temperature control block section and the retaining block section in a stack in order to provide reflux and condensation during reaction. Cooling gas or liquid is circulated through the reflux control block section. Alternatively, a portion of the reflux chamber is filled with a solid coolant such as ice or solid CO_2. These block sections are fastened together in a stack to form the array synthesis block. Fastening is accomplished by any number of suitable methods such as bolts passing through registering holes in the multiple block sections, clips holding the multiple block sections together, or an exterior bracket that clamps the block sections together as an assembled synthesis block. Once the individual sections of the synthesis block are fastened together the entire unit can be sonicated or fastened onto a rotational shaker.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 14-18, 28-29 and 61 rejected under 35 U.S.C. 103(a) as being unpatentable over Baker as applied to claims 1-4 and 59 above, and further in view of Gubernator (US 6,436,351 newly cited and applied). Baker does not teach the wells as part of an integral body.

In the patent Gubernator teaches a microtitre chemical reaction system (15), comprising, a support rack (16, a body) having an array of reaction wells (18) disposed therein, each reaction well (18) having an open top end (30) and a closed bottom end (32); a plurality of generally funnel shaped reactor caps (20) with each of reactor cap (20) being received into open top end (30) of each reaction well (18); a porous gas-permeable layer (22) positioned over support rack (16), gas-permeable layer (22) having an array of holes (23) therein with each hole (23) being positioned over open top end (30) of each of the plurality of reaction wells (18); gasket (24) positioned over porous gas-permeable layer (22); and a top cover (26) positioned over gasket (22). Column 1, lines 11-29 teach that microtitre plates (a body with wells formed therein) provide convenient handling systems for processing, shipping, and storing small liquid samples. Such devices are especially useful in high-throughput screening and combinatorial chemistry applications and are well suited for use with robotic automation systems which are adapted to selectively deliver various substances into different individual wells of the microtitre plate. As such, microtitre plates have proven especially useful in various biological, pharmacological, and related processes to analyze and/or synthesize large numbers of small liquid samples.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a microtitre plate as taught by Gubernator in the Baker device because of the advantages taught by Gubernator in the use of these plates to analyze and/or synthesize large numbers of small liquid samples in various biological, pharmacological, and related processes.

8. Claims 7-10, 21-24, 30-33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker or Baker in view of Gubernator as applied to claims 1 and 14 above. Baker does not teach the relative positioning of gas inlets and gas vents, the use of a plurality of inlets and vents or a plurality of modules. However the Courts have held that the reversal of parts is not a matter of invention, the rearrangement of parts without changing their functions is within the skill in the routineer in the art, and mere duplication of parts without any new and unexpected results is within the skill of the routineer in the art (see *In re Gazda*, 104 USPQ 400 (CCPA 1955),

In re Japikse, 86 USPQ 70 (CCPA 1950), *In re Harza*, 124 USPQ 378 (CCPA 1960) and *Sjolund v. Musland*, 6 USPQ 2d 2020 (Fed. Cir. 1988)).

9. Claims 11-13, 25-27 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker or Baker in view of Gubernator as applied to claims 1, 14 and 32 above, and further in view of Mohan (US 5,888,830). Baker does not teach a drain to the reaction tubes, a membrane in contact with the sample or a valve.

In the patent Mohan teaches a device in which multiple chemical reactions are performed in a plurality of reaction vessels mounted in inlets in a manifold valve block. The manifold valve block is connected to a channel block which is utilized in conjunction with a solvent delivery system as part of the reaction cycle. The solvent fluid is drained from the reaction vessels when valves in the manifold valve block are opened while applying a vacuum thereto. Optionally, a thermal block may be utilized in conjunction with the manifold valve block and the channel block to facilitate the reaction. Upon completion of the reactant cycle, the manifold valve block is disconnected from the channel block and connected to a cleavage block assembly which contains vials for collecting reaction products. The cleavage product is drained from the reaction vessels through the manifold valve block into the vials upon opening the valves in the manifold valve block and applying a vacuum to the channel block. The device is substantially similar to the Baker device and includes a reaction station system (10) having an 8X12 array or matrix of reaction stations arranged in twelve columns and eight rows with each reaction station associated with a single reaction vessel (12) having a syringe tip (13). Each of the reaction vessels is of a generally known configuration and includes a filter (12a, membrane) at the syringe tip above which is a frit (12b) that is configured as solid support beads upon which chemical templates are attached via appropriate linkers. The filter normally holds liquids such as solvents and reaction products in the reaction vessel. The manifold valve block (30) is in the form of a first rectangular section with the rows of valve operators (32) therein aligned with separate rows of valves for each reaction vessel so that the reaction vessels can be closed to retain solvents therein during the reaction stage of the process. The manifold valve block also has a plurality of inlet ports (23) in the top surface thereof, each of which receives the syringe tip of a reaction vessel. Beneath manifold block is a channel block (34) in the form of a second rectangular section which has channels therein for draining fluid out of the system via a drainage system (35) and combines

with the manifold valve block to comprise the reaction grid (14). The channel block which forms the second rectangular section has a top surface with a plurality of inlet portion extensions. The drainage system includes an exhaust line (36) connected to a waste vessel (38) and a vacuum pump which draws fluid from the reaction vessels after the valves in the manifold valve block, operated by the valve operators, have been opened. A controller (27) which operates the washing system (21), may also be used to operate the drainage system.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Mohan reaction vessel and its fluid processing system of valves and membranes into the Baker device because of the ability to perform synthesis according that taught by Mohan.

10. Claims 1-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friswell (US 5,100,623) in view of Ball (US 5,679,580) and Mohan as explained above. In the patent Friswell teaches a laboratory evaporation apparatus for use in isolating solids from liquids by evaporating the liquid, including a vessel for receiving a composition of liquid and solid substances; a gas supply for supplying a drying gas; a gas line for directing the drying gas from the gas supply to the vessel; a liquid supply for supplying a solvent capable of dissolving the solid substance; and a liquid line for directing the solvent from the liquid supply to the vessel. Also included is a sensing means for sensing conditions of evaporation within the vessel and an automatic control system adapted to sequentially initiate a flow of drying gas to the vessel, initiate a flow of solvent to the vessel in response to sensing of a given evaporation condition by the sensing means, interrupt the flow of solvent to the vessel after a certain quantity of solvent has been received thereby, and interrupt the flow of drying gas to the vessel in response to sensing of a particular evaporation condition by the sensing means. The apparatus automatically produces an evaporation cycle, a solvent reconstitution cycle, and a re-evaporation cycle thereby significantly reducing previously required costly manual procedures. An evaporator (11) is encompassed in a housing including a front housing portion (12) and a rear housing portion (13). In the front portion is a hollow basin (14) for accommodating a temperature controllable water bath, a support rack (15) mounted in the basin to retain a plurality of vessels (16) having openings at their upper ends for receiving liquid and solid compositions. Also in the front housing portion is a vent (17) that communicates with an exhaust port in the rear housing portion. A tray-shaped,

transparent cover (18) is pivotally mounted on the rear housing portion and can be pivoted from an open position as shown in figure 1 to a closed position completely covering the basin and the vent. Mounted in a rear portion of the cover is a bracket assembly (19) that supports a combined gas and liquid supply line assembly (21) including a plurality of elongated nozzles (22) rigidly supported by the bracket 19. Upon closure of the cover, each of the nozzles is arranged to enter the open top of a different one of the vessels in the manner shown in figure 2. An electrical control system (see figure 4) is within the rear housing portion and automatically controls a predetermined evaporation process in each of the vessels. A vessel is depicted in figure 2 along with the sensing system (36) for monitoring completion of an evaporation cycle within the vessel. Each vessel includes a tubular upper portion having a diameter D and a length L and a lower portion having a diameter d and a length 1 that are generally smaller than the upper portion. Also illustrated in the figure is one of the nozzles positioned at the top of the upper tube portion to produce fluid discharge in a helical path (33) along the inner wall of the upper vessel portion downwardly at an angle of from about 30 to 45 degrees from horizontal. Because of the helical flow, a vortexing action occurs in the liquid in the vessel producing sample homogeneity and continuous rinsing of the vessels inner wall. After reaching the bottom of the vessel, the vapor-laden drying gas exits via an unobstructed path (35) up the center portion of the vessel and is removed by an exhaust fan through the vent. Friswell does not teach the gas inlet in a sidewall of the device being directed tangent to a curve of the sidewall, the relative positioning of gas inlets and gas vents, the use of a plurality of inlets and vents, a plurality of modules, a drain to the vessels, a membrane in contact with the sample or a valve.

In the patent Ball teaches a rapid evaporation method for analysis in which dissolved components of a liquid sample are recovered for analysis by delivering the sample to a concentrator comprising a cylindrical receptacle into which an uncontaminated gas, such as air, is introduced in a direction tangentially of the cylindrical wall. The gas is under sufficient pressure to effect swirling of the gas and liquid sample and atomization of the sample to rapidly evaporate the same and cause a residue containing the dissolved components to be deposited on the interior surface of the wall. A reconstituting solvent is then admitted to the receptacle to dissolve the residue and provide a reconstituted, concentrated sample for analysis. If desired, the sample may be concentrated to a given volume rather than to complete dryness. A dilute liquid

substance may be processed by rapid evaporation to provide a final product of desired concentration. Column 1 teaches that prior systems for sample concentration include evaporators which typically operate in a batch mode and agitate and/or heat the sample to increase the speed of evaporation. This can be a period of several hours or even a day to reduce the fluid sample volume to the desired concentration, severely limiting the rate at which laboratory procedures can be concluded. The invention described is an improved process for evaporating liquid samples that will enable analytical laboratories to meet requirements for rapid sample turnaround and provide the ability to process large volume samples on a continuous as well as a batch basis. The device is an upright cylindrical receptacle (10) constructed of Teflon, glass or stainless steel with a relatively thin, cylindrical wall (12) having an elongated, vertical inlet slit (14) therein. A pair of closely spaced, outwardly projecting inlet ports (22,24) communicate with the interior of the cylindrical chamber defined by the wall, and are disposed in closely spaced relationship to the base plate. An outlet port (26) is located at the center of the base plate (16), the latter sealing the bottom of the receptacle and providing an upper surface (28) which has an inverted conical configuration presenting approximately at twenty degree slope from the circumferential edge of the base plate to the outlet port. A pressure sensor port (30) also communicates with the interior of the cylindrical chamber and is disposed above inlet slit adjacent the upper end (20) of the receptacle. A tube or conduit (32) communicates with a cap (34) which fits over and is sealed to the upper end (20) of the receptacle, the conduit extending to the intake of a vacuum pump. An input liquid supply line (36) communicates with one inlet port through a valve (38), and a solvent supply line (40) communicates with the other inlet port via a valve (42). An outlet line (44) extends from the outlet port and is controlled by a valve (46). One operational mode is the processing of a liquid sample to recover components for an analytical laboratory procedure to identify the dissolved components. In this mode, the liquid sample is supplied to the cylindrical chamber within the receptacle by opening the valve (38). With the vacuum pump in operation, a negative pressure at the top of the receptacle draws ambient air or a controlled atmosphere, such as nitrogen, into the chamber through the Venturi-like inlet slit in a tangential direction where swirls around the inside surface of the cylindrical wall as illustrated by the arrow 48 in figure 3. The function of the incoming air or other gas is to effect rapid evaporation of the sample and cause a residue containing such components to be

deposited on the interior surface of the wall. This is accomplished by maintaining the incoming air at a sufficiently high pressure to effect atomization of the sample into fine droplets so that evaporation will occur at a much higher rate than it would if the liquid were simply contacted by the air and swirled in the chamber. As the air spirals upwardly (arrow 50) to the vacuum conduit, the liquid advances to approximately one-half of the height of the receptacle. The applied vacuum is limited to a level that will cause the atomization necessary for rapid evaporation, but not suck the liquid out of the receptacle and is maintained until evaporation is complete. This leaves the dissolved components deposited on the interior surface of the wall for reconstituting by opening a valve to admit a reconstituting solvent and swirling briefly to dissolve the sample residue from the wall surface. The vacuum is then removed and the valve is opened to drain the reconstituted sample from the receptacle.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the sidewall gas inlet as taught by Ball into the device and method of Friswell because of the similarity in the method of operation and to obtain the rapid evaporation taught by Ball. The Courts have held that the reversal of parts is not a matter of invention, the rearrangement of parts without changing their functions is within the skill in the routineer in the art, and mere duplication of parts without any new and unexpected results is within the skill of the routineer in the art (see *In re Gazda*, 104 USPQ 400 (CCPA 1955), *In re Japikse*, 86 USPQ 70 (CCPA 1950), *In re Harza*, 124 USPQ 378 (CCPA 1960) and *Sjolund v. Musland*, 6 USPQ 2d 2020 (Fed. Cir. 1988)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the Mohan reaction vessel and its fluid processing system of valves and membranes or the ability to remove the sample from the vessel using a drain and valve as taught by Ball into the Friswell device and method because of the ability to add and remove liquids in a non batch manner according that taught by ball and Mohan.

11. Applicant's arguments filed September 3, 2004 have been fully considered but they are not persuasive. Relative to the 112 2nd paragraph rejection, it is the clarity of the boundary between the volumes or the extent of each volume that is being questioned by the examiner. While there is a sidewall that forms at least a portion of the boundary of each volume, there is no feature of the sidewall or any other structural element that defines a boundary between the respective volumes. Applicant appears to be trying to define the device by the function of

different volumes during use, yet there is no positively recited structure that clearly delineates where one volume starts or ends. As a result the claimed device appears to have only one volume which fulfills the different functions of holding a sample and providing communication or connection of the sample and the other positively recited elements (gas inlet, vent and sample opening). Another possible view is that the first and second volumes are really a single volume that is not occupied by the sample and so there are really only two volumes to the device. Another aspect of this is if a sample is not present, is there a sample volume? This is how the arbitrary nature of the definition of the different volumes in the device create confusion for one trying to determine the boundaries of the claims and what constitutes infringement of the claim. In other words, the volume language appears to be an attempt to define the device by how it is used rather that the actual structure of the device. An example of how this could occur would be to ask if one were to use the Baker device for desiccation rather than synthesis or any of its other possible uses, would it infringe the claimed structure? If it were used for one of its many other purposes would if infringe the claimed structure? If the answers are different, then there are clarity problems with how applicant has chosen to define the structure in the claims because applicant is trying to distinguish or limit that structure based on its use rather than its actual structure. If the answers are the same, then applicant has confirmed the validity of the anticipation rejection of the claims by the structure of the Baker reference. Thus, the volumes fail to properly point out or distinctly claim the invention since the boundaries between volumes are not directly tied to positively recited structure and are arbitrary in nature or are tied to a use that may or may not be the only possible use for the structure. Additional issues of clarity became apparent as the claims were reviewed. Relative to claim 63, this extended to the point that applicant appears to be claiming something which is either impossible (no vortex in the second volume) or has no basis in the original disclosure. Applicant's discussion of the applied Ball reference in the last full paragraph of page 4 of the response filed March 25, 2004 is also illustrative of the problems with the clarity of the claims. The argument is that there is no volume above the sample volume. This is a product of the use of the device not of a change in the structural features of the device. In other words the device has not changed, but the volumes as defined by the claims have, leaving one with trying to avoid a moving boundary. This is exactly a problem of clarity since it causes confusion about what is within the claim boundaries.

Relative to the rejections based on Baker applicant is directed to claim 1, which essentially requires a container with a sidewall that has a gas inlet, gas vent and a sample opening. Applicant is certainly capable of reading the Baker reference to see that the retaining block section when combined with a tube (see figures 1b and 4a-4c) of the reference have the necessary structure to anticipate the limitations of claims 1-4 and 59. Although not described with this specificity by examiner in the last office action, there was a clear reference to this section of the device and its gas flow channeling to provide a selective gas atmosphere in the description of that action. The sample opening (16) is present and covered by a septum (12). The claims certainly do not exclude additional structure being present due to their use of open language. With respect to claims 14-18 and 28-28 the concentrator element would be the retaining block section (6) shown in the figures. Examiner notes that the processing element language in claim 14 has resulted in claims 14-18, 28-29 and 61 now being rejected as obvious over Baker in view of the newly cited and applied Gubernator reference. This reference clearly teaches advantages or reasons why one would use a microtitre plate for synthesis in a device that is similar in function to the Baker device. Relative to the obviousness of the claims on the basis Baker in view of the Court decisions, examiner would point out that the Court considered the issues relative to the level of one of ordinary skill in the art and found that within the skill of one of ordinary skill in the art is the knowledge that would provide the motivation to make each of the required changes unless there is an unexpected result. Since applicant has not shown there is an unexpected result, the rejection is proper. Relative to the rejections of Baker in view of Mohan, the above comments are sufficient.

Relative to the obviousness of the claims over Friswell in view of Ball and Mohan, examiner points to the fact that both Friswell and Ball cause the sample to dry by introducing air or some other gas into the container such that it contacts the sample with a circular or helical motion. The primary difference being the force with which the gas contacts the liquid being dried. This is in no way radically different in terms of the proposed modification of the Friswell reference teachings. Applicant has not pointed to anything in Friswell that would prevent some atomization from occurring. In fact column 4, lines 42-46 of Friswell teach that the air contacting the sample causes the sample to vortex causing the inner wall of the vessel to be continually rinsed. The Ball reference causes the sample to swirl (vortex, see column 1, line 47

to column 2, line 14 and column 3, lines 18-41) to cause the atomization to occur. This is the similarity between the two references that examiner was referring to that connects the two references. Examiner again points applicant to claim 1, which only requires that the gas inlet be in direct fluid communication with the first volume. This does not limit the gas inlet from being in direct fluid communication with other volumes. Thus the claims do not exclude the combination and one of skill in the art would have recognized that the gas inlet of Ball would provide for a faster evaporation of solvent. Based on this advantage, the person of skill would have found motivation to incorporate the gas inlet of Ball into the Friswell device. Alternatively, in *In re Keller*, 208 USPQ 871, 881 (CCPA 1981) and *In re Sneed*, 218 USPQ 385, 389 (Fed. Cir. 1983), the Court found that it is not necessary that inventions be physically combinable to render the invention under review obvious or the test of obviousness is not whether the features of a secondary reference can be bodily incorporated into the primary reference's structure. In this respect Ball shows that one can obtain the same vortexing path for the air with the gas inlet located on a sidewall of the container.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additionally cited Brennan reference shows that use of microtiter/microfiltration trays in the synthesis of an array of compounds.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arlen Soderquist whose current telephone number is (571) 272-1265 as a result of the examiner moving to the new USPTO location. The examiner's schedule is variable between the hours of about 5:30 AM to about 5:00 PM on Monday through Thursday and alternate Fridays.

A general phone number for the organization to which this application is assigned is (571) 272-1700. The fax phone number to file official papers for this application or proceeding is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Arlen Soderquist

December 2, 2004

ARLEN SODERQUIST
PRIMARY EXAMINER